

TWENTY-FOURTH ANNUAL

REPORT

OF THE

SANITARY CONDITION

OF THE

URBAN DISTRICT

OF

WATFORD,

FOR THE YEAR

1896,

BY

ROBERT A. ST. LEGER, M.B.,

Medical Officer of Health.

WATFORD:

PEACOCK, PRINTER, QUEEN STREET.

TO THE CHAIRMAN & MEMBERS OF THE WATFORD URBAN DISTRICT COUNCIL.

GENTLEMEN,

I have the honour to submit to you my Annual Report for the year 1896. The year has been a very mild one, no severe epidemic has attacked your District, and the death-rate for the year is remarkably low, the lowest, with one exception, on record. It is a memorable one, for having witnessed the completion of the New Isolation Hospital, which was opened in April last; extensive Drainage Works have also been undertaken, and are in progress; and in matters Educational much care has been exhibited.

A glance at the Map which accompanies this Report will shew that the L. & N. W. Railway main line divides the town up into three portions—

WATFORD,
BUSHEY,
CALLOW LAND.

As these three divisions have certain well marked differences, I have, in drawing up the Report, arranged my statistics so as to compare one with the other.

In the whole District, with the exception of the numerous courts and alleys abutting on the High Street, the streets are well laid out, wide and airy. With few exceptions the houses are well built, and cottages roomy. These few exceptions, which are mainly found in the courts and alleys, are very marked, the cottages being old, damp, dilapidated, and without adequate sanitary conveniences.

Bushey differs from the other part of Watford in its soil, which is gravel upon clay, whereas the rest of the town is gravel upon chalk.

The Callow Land District is almost entirely new, having been built during the last six years. The cottages, which are nearly all of the working class, are especially good, the drainage being up to date.

WATER SUPPLY.

Water supply derived from deep wells sunk in the chalk. Exceedingly pure, but hard (24°). The hardness, which is chiefly due to calcium salts, is removable by boiling, and is in no way detrimental to health.

The whole District, except the greater part of New Bushey, is supplied from the Council's own wells. The supply is on the intermittent system, about 36 gallons per head per diem being supplied.

The New Bushey portion I have alluded to is supplied by the Colne Valley Company, the water being softened before distribution.

SEWERAGE AND DRAINAGE.

The town is sewered on the separate system the sewage being disposed of by broad irrigation on the Council's own Farm, which is situated to the south east of the town.

A new high level intercepting sewer varying from 18in. to 2 feet in diameter is now in course of construction, when finished it will take all the Callowland Sewage and that of Watford lying to the North of its course.

VITAL STATISTICS.

Growth of the Town.

In 1891, at the General Census, the population was 17,769. As evidencing the rapid growth of the town since that date, I subjoin a tabular statement of new houses built.

1891.....	96	1894.....	328
1892.....	418	1895.....	218
1893.....	264	1896.....	295

The Population of your District, estimated to the middle of 1896, is 24,000.

The area of the District is $784\frac{1}{2}$ acres, which gives an average density of population of 30·59 per acre.

Marriages.

1st Quarter	21
2nd „	53
3rd „	52
4th „	39
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Total			165
Marriage rate			13·75.

Births.

The Births registered during the year were 691, excluding five which took place in the Union Infirmary, the mothers of which did not belong to your District.

The Birth rate for the year was 28·58.

In 1895 the Birth rate was 31·2.

Illegitimate Births, 29 (including the five which did not belong to Watford.

Deaths.

The total Deaths registered as occurring in the District during 1896, was 365.

From this number must be deducted 14 deaths which took place in the Workhouse Infirmary, one in the Cottage Hospital, and five in the Isolation Hospital, of patients who, previous to admission, resided outside the District.

The total Deaths thus corrected represented a mortality of 11·87 per 1000 of estimated population.

In 1895 the Death rate was 15·38.

Twenty of the Deaths registered were above 80 years of age, one being over 90.

Comparing the Deaths under one year with Births (*vide* Table subjoined), it will be seen that the corrected infant mortality was 109·32 per 1000 Births registered.

(A) TABLE OF DEATHS DURING THE YEAR 1896, IN THE WATFORD URBAN DISTRICT,
CLASSIFIED ACCORDING TO DISEASE, AGES, AND LOCALITIES.

[illegible]

TABLE V.

Schedule of Births and Deaths for previous Years.

Year.	Population.	Births.	Deaths.	General Death Rate.	Zymotic Death Rate.
1880	10,400	323	191	18·3	2·4
1881	10,073	344	182	18·06	2·48
*1882	12,653	339	181	15·68	2·08
1883	12,684	433	231	16·23	1·13
1884	12,950	442	261	17·8	1·6
1885	13,220	425	262	17·3	2·7
1886	13,490	463	276	18·08	2·37
1887	13,840	462	216	13·51	1.
1888	16,000	466	294	17·2	2·12
1889	16,300	457	237	13·6	1·6
1890	17,000	328	248	13·23	·76
1891	17,000	396	242	12·94	·35
*1892	19,400	547	306	13·93	1·9
1893	20,500	580	284	12·82	·87
1894	21,500	610	248	10·46	·51
1895	23,200	724	400	15·38	2·34
1896	24,000	606	285	11·87	·87

* District enlarged in this year

ZYMOTIC DISEASES.

Under the Notification Act, 101 reports were made to me.

Scarlatina.

Forty-four cases occurred during the year, 37 of which were removed to your Isolation Hospital for treatment.

Subjoined are Tabular Statements of cases, a study of which will shew—

1st—Large proportion of cases which occurred in New Bushey.

2nd—Greater incidence of the disease on young children.

3rd—Greater incidence of cases in 3rd quarter.

During July this disease was the subject of especial enquiry. Information was received that two cases had occurred outside the District, which were supposed to be traceable to the New Bushey Board School. The school was at once visited, all the children who had been away ill during the previous three weeks were examined, and all children then absent from school were followed home and enquiries made. As a result of these enquiries two cases were discovered which had not been notified; one, a child about the third day of the disease, and the other at the desquaming stage.

The following measures were taken to cope with the complaint:—

- (a) Early removal of patient to Hospital.
- (b) Fumigation and cleansing of affected premises.

TABLE SHEWING No. NOTIFICATION AND DISEASE NOTIFIED FROM 1891—1896.

DISEASE.	1891	1892	1893	1894	1895	1896
Small Pox	* —	—	10	1	1	—
Scarlatina	4	52	364	60	66	44
Diphtheria	12	10	8	7	23	28
Membranous Croup ...	—	2	5	2	2	—
Fevers—						
Enteric or Typhoid...	9	5	2	7	3	9
Continued	—	—	—	—	1	—
Puerperal	—	1	1	—	1	—
Erysipelas	7	18	26	6	13	20
Estimated Population ...	17,769	19,400	20,500	21,500	23,200	24,000

* For 9 months.—Notification Act came into force in April of this year.

TABLE SHOWING DATES NOTIFICATION RECEIVED.

MONTH.	SCARLATINA.	DIPHTHERIA.	ENTERIC FEVER.	ERYSIPELAS.	TOTAL FOR QTR.
January ...	3	5	—	1	} 20
February..	4	1	1	—	
March.....	—	4	—	1	
April	2	1	—	—	} 14
May.....	1	3	—	—	
June	3	1	1	2	
July.....	11	1	—	2	} 43
August ...	6	2	2	4	
September	7	—	2	6	
October ...	3	2	—	—	} 24
November	1	4	2	—	
December.	3	4	1	4	
TOTAL ...	44	28	9	20	101

B. TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS,

COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, DURING THE YEAR 1896, IN THE WATFORD URBAN DISTRICT, CLASSIFIED ACCORDING TO DISEASES, AGES AND LOCALITIES.

Names of Localities adopted for the purposes of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	NEW CASES OF SICKNESS IN EACH LOCALITY COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.										NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Census 1891.	Estimated to middle of 1896.		Aged under 5 or over 5.	FEVERS.						Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Watford (old town)	17,769	17730 3290 2980	452 103 127 9	{ Under 5 { 5 upwards.	1 16	2 11	4	1 12	1 5

TABLE SHOWING INCIDENCE OF AGE IN CASES OF
INFECTIOUS DISEASE NOTIFIED.

AGE.	SCARLATINA.	DIPHTHERIA.	ENTERIC FEVER	ERYSIPELAS.
Under 1	—	—	—	—
1-5	5	9	—	—
5-10	20	13	—	—
10-15	10	3	2	—
15-20	3	1	1	—
20-30	4	2	2	2
30-40	1	—	3	4
40-50	1	—	—	6
50-60	—	—	1	4
60-70	—	—	—	2
70-80	—	—	—	1
80-90	—	—	—	1

DIPHTHERIA.

Twenty-eight cases notified, Sixteen of which were removed to Hospital. Of those treated at home, 3 died. One died in Hospital.

In five cases the disease was contracted outside district.

There were also two deaths certified from Croup.

Subjoined is Table giving date of occurrence
and place :—

DATE.		STREET.	SEX.	AGE	SCHOOL.	REMARKS.
Jan.	3	Copeswood St.	F	4	...	A visitor from Kilburn, where disease is believed to have been contracted. Sanitary arrangements good.
,,	9	Park Road ...	M	4	..	Contracted at Ryde. Sanitary arrangements good.
,,	26	Cannon Road.	F	5	Watford Field	Visited 5 days previous to Notification house at Bushey from which patient suffering from Diphtheria was removed to Hospital. Fatal.
,,	28	Gladstone Rd.	M	7	Private	Bad Sanitary arrangements. Rectified. Trap blocked. Inspection Chamber fitted up.
,,	31	Percy Road ...	F	5	Old Free	Mild case. Rectified.
Feb.	27	Gladstone Rd.	F	5	Private	School thoroughly overhauled. Defective Sanitary arrangements attended to. Both cases Fatal.
March	2	Derby Road...	M	9	Private	
,,	21	Copeswood St.	M	3	...	Second case.
,,	28	Copeswood St.	F	20	...	Third case. Third case came home ill from Tuffnell Park, March 16th.
,,	30	Vicarage Road	M	8	Old Free.....	Defective Sanitary arrangements rectified.
April	24	Garfield Street	F	2	Callow Land ..	Sanitary arrangements good.
May	11	Cecil Street ...	M	14	...	Sent home ill on May 9th from West Hampstead.
,,	14	High Street ...	F	6	Watford Field	Mild case. Slight Sanitary defects rectified.
,,	14	Clarendon Rd.	M	11	...	Sanitary arrangements good.
June	11	St. Albans Rd.	F	13	Callow Land...	Sanitary arrangements good.
July	16	Chalk Hill ...	M	19	...	Serious sanitary defects rectified.
August	4	L. Paddock Rd	F	23	...	Sanitary arrangements satisfactory.
,,	5	L. Paddock Rd	F	1	...	Dirty house.
Oct.	22	Oxford Street.	F	5	Watford Field	Sanitary arrangements good.
,,	29	Chalk Hill	F	6	Watford Field	Sanitary arrangements good, but house dark and damp.
Nov.	2	Chalk Hill	F	1	...	Second case Fatal.
,,	5	Villiers Road..	F	3	...	Sanitary arrangements good. Child nursed by Mother of last two cases.
,,	9	Essex Road ...	F	3	...	Defective drains. Rectified.
,,	14	Union House..	F	6	...	Contracted in the Infirmary,
Dec.	2	Denmark St...	F	7	Sotheron Rd..	Sanitary arrangements good.
,,	9	Vicarage Road	F	9	Beechen Gr'Ve	Sanitary arrangements good.
,,	10	Regent Street.	F	3	Callow Land...	Sanitary arrangements good.
,,	31	Pinner Road...	F	5	Bushey Board	Sanitary arrangements good.

ENTERIC FEVER.

Nine cases notified. Five from Bushey, four from Watford.

2 cases were associated with gross sanitary defects.

1 was associated with nuisance connected with main sewer.

1 was associated with nuisance attendant on transit and deposit of garbage.

In 3 cases the disease was contracted without your District.

2 unaccounted for.

9

WHOOPIING COUGH.

Seven deaths attributed to this cause, all in infants under 5 years of age.

MEASLES.

The epidemic of this complaint, which commenced early in November, 1895, causing 36 deaths between November 10th and December 31st, still persisted during January—seven deaths being attributed to it; in every case lung complication being the cause of death.

FEVER HOSPITAL.

It is with great satisfaction I have to record that you have arranged to take over, under your joint control, the Isolation Hospitals, built and opened in April last by the Rural District Council.

Watford is now well equipped for the treatment of infectious disease.

For further details I would refer you to the report of the Medical Superintendent.

TOWN IMPROVEMENTS.

Market Place.—This has been repaved and is now a credit to the town.

Wells Yard.—This court has been made up, curbed, channelled, and paved.

New Recreation Ground.—This is receiving attention; it is being raised, ditches cleaned out and banked up.

Watford Fields.—This has been improved—trees removed from Denton Hospital having been planted there. I hope in the course of this year, under the fostering care of Mr. Capell, who has given much attention to it, it will be properly laid out with shrubs. The trees should also be protected by iron guards.

INSANITARY PROPERTY.

Clarke's Buildings.—These buildings, consisting of 10 cottages, were condemned and closed during the year.

Ballard's Buildings.—In my last year's report I drew your attention to the insanitary condition of this court. The yard being ill-paved and dirty—cottages in bad state of repair—many of them, by reason of adjacent buildings, badly ventilated, damp and dark. The only sanitary conveniences being two rows of extremely foul and filthy trough closets situated at the bottom of the yard, upwards of 50 yards distant from some of the cottages. During the year they were again the subject of a special report, in which I advised that the court should be treated as an insanitary area. I regret you have not seen fit to do this.

The system of closing two or three Cottages at a time is unsatisfactory, and is not likely to lead to any public benefit. Legal proceedings are now pending with regard to this property.

Otterspool Cottages.—These Cottages are at the present time the subject of legal proceedings on account of their insanitary and dilapidated condition.

In the coming year I hope steps may be taken to put certain of the other Courts in a more sanitary condition.

PUBLIC SEWERS.

The New Bushey Sewers were the subject of a special report to you in September. Numerous complaints having been received of smells from the street Ventilators.

These Sewers are built on Bailey Denton's plan, the same inspection chamber being utilised for both the sewer and storm water drain, the idea being that should at any time the storm water drain be overcharged, it would overflow into the sewer. But as the rain water pipes from some houses are directly connected to the storm water drain, there was a danger of sewer gas being laid on to the houses and discharged beneath the eaves. It was decided to hermetically seal the storm water drain where it entered the inspection chamber, thus shutting it off from the sewer, to close the more objectionable street openings, and to erect ventilating shafts. This work is still in progress.

In other portions of your District the street openings are also receiving attention, ventilating shafts being erected in their place at all dead ends of the sewer.

SCAVENGING.

This matter, which has been the subject of a special report to you, is still under consideration.

At the present time you yourselves scavenge twice weekly all the Watford and Callow Land portions of your District. (The New Bushey portion being contracted for).

This is not sufficient, and leads to the storing on the premises of offensive debris.

I trust in the ensuing year you will see your way to—

- (1) Abolish all fixed dustbins throughout your District.
- (2) To institute a daily scavenging service, especially in and about the High Street and in all courts and alleys.

BATHING PLACE.

I trust in the coming year you may see your way to improve the public Bathing Place. The stream just above the boxes is much overgrown with weeds, it would be well to have these cleared out and the river widened at this part. During the summer months the crowd of bathers was so great that many would-be swimmers were driven away.

It is very desirable that the town should be furnished with a swimming bath which would be available in winter.

Subjoined you will find an epitome of MR. BAKER'S report, and also some meteorological returns for the year.

I have the honour to be Gentlemen,

Your obedient servant,

ROBERT A. ST. LEGER.

SUMMARY OF ACTION TAKEN BY THE SANITARY INSPECTOR FOR THE YEAR 1896.

Communications received respecting complaints, &c.	..	..	439
Orders issued for sanitary amendment of houses and premises	..	..	319
Defective drains opened up and re-laid	..	..	250
Defective soil pipes and ventilating shafts carried up efficiently	..	..	179
Wastes from baths, lavatory fittings, and sinks properly trapped	..	..	217
Defective closets	..	..	146
Drains repaired, cleansed and trapped..	..	..	69
New water closets constructed to replace dilapidated buildings	..	..	21
Houses and premises repaired, cleansed and purified	..	..	119
Houses fumigated, paper taken off walls, and either re-papered or coloured	..	..	101
Accumulations of manure and organic matter removed	..	..	45
Manure receptacles constructed..	..	..	19
Yards re-paved	..	..	16
Unwholesome houses reported	..	..	27
Ditto do. closed	..	..	16
Overcrowdings abated	..	..	4
Animals removed, being improperly kept	..	..	11
Common lodging houses visited (including 3 nightly surprise visits)	..	..	5
Common lodging houses abolished	..	..	1
Bakehouses	..	..	Regularly inspected.
Licensed slaughterhouses	..	..	Do.
Dairies, cowsheds, and milkshops	..	..	Do.
Meat seizures (including carcase of sheep)	..	..	2
Prosecutions following thereon	..	..	1
Dead body removed to Mortuary for immediate burial (Sec. 142, P.H.A.)	..	..	1
Houses numbered	..	..	Various new streets.
Sewer ventilators, New Bushey..	..	..	Reported upon.
Scavenging of the district	..	..	"
Applications for slaughter-house licence refused	..	..	1
Offensive trades abolished	..	..	1
Carcases of dead dogs, cats, &c., removed & properly buried...	..	..	Numerous.
Travelling vans visited	..	..	Various.

METEOROLOGICAL RETURNS.

The total rainfall for the year was 27·61 inches.
The fluctuation of ground water being 3ft. 1n.

MONTH.	DAYS IN WHICH RAIN FELL.	RAINFALL. *	AVERAGE HEIGHT OF SUBSOIL WATER ABOVE SEA LEVEL.†
January	9	·78	192·573
February	5	·39	192·1
March.....	24	3·47	191·85
April	9	·49	192·55
May.....	3	·27	192·02
June	10	1·60	191·387
July	8	1·53	190·8
August	15	3·60	190·36
September	23	7·29	190·925
October....	22	2·96	190·525
November	10	1·34	192·38
December	21	3·89	193·072

159 days on which .01 inch or more fell.

* As measured at Frogmore by A. P. Blathwayt, Esq.

† As measured at Ashlands by Professor Attfield.

Ashlands is 267 feet above sea level, and the well in which these observations were taken is 80 feet deep.

The observations were made weekly. The highest reading was on on December 27th, and the lowest on August 16th, 23rd and 30th, 193·4 and 190·3 being the levels recorded, 3 ft. 1 in. being the extent of the fluctuation.

